

XLI.—*Rhynchotal Notes*.—XV. Heteroptera: *Family Reduviidæ (continued)*, Piratinæ and Ectrichodinæ. By W. L. DISTANT.

ALL the species described by Walker in the Piratinæ and Ectrichodinæ have been examined and their position considered in this paper, while some of those he described under the genus *Reduvius*, and which were left over from the last paper, are now determined; but a few more await further investigation, and will be dealt with subsequently. A number of new species contained in the National Collection are described at the same time.

PIRATINÆ.

Genus ECTOMOCORIS.

Ectomocoris atrox.

Pirates atrox, Stål, Öfv. Vet.-Ak. Förh. 1855, p. 187.

Pirates diffinis, Walk. Cat. Het. vii. p. 120. n. 77 (1873).

Pirates ypsilon, Kirby, Journ. Linn. Soc., Zool. xxiv. p. 113, pl. iv. fig. 8 (1891).

Pirates stigmativentris, Kirby, loc. cit. p. 112. (Immature form.)

Ectomocoris quadriguttatus.

Reduvius quadriguttatus, Fabr. Spec. ii. p. 380 (1781).

Pirates sermaculatus, Walk. Cat. Het. vii. p. 116. n. 70 (1873).

Pirates decisis, Walk. loc. cit. p. 118. n. 73.

Walker, in his description of *P. decisis* (*supra*), has omitted to mention that the posterior lobe of the pronotum is testaceous.

Ectomocoris rufifemur.

Pirates rufifemur, Walk. Cat. Het. vii. p. 119. n. 76 (1873).

Eumerus insignis, Reut. Act. Soc. Sc. Fennic. xii. p. 317 (1881).

Eumerus Reuteri, Bol. Ann. Soc. Ent. Fr. 1882, p. 464.

The spot described by Walker as near the tip of the corium is really in the membrane. Reuter's description of *E. insignis* will correctly replace the pseudo-description given by Walker of his *E. rufifemur*.

Ectomocoris posticus.

Pirates posticus, Walk. Cat. Het. vii. p. 115. n. 69 (1873).

Eumerus flaviger, Stål, En. Hem. iv. p. 61 (1874).

Ectomocoris elegans.

Reduvius elegans, Fabr. Syst. Rhynch. p. 270 (1803).

Pirates inscriptus, Walk. Cat. Het. vii. p. 115. n. 68 (1873).

*Ectomocoris cordiger.**Ectomocoris cordiger*, Stål, (Efv. Vet.-Ak. Förh. 1866, p. 256.*Pirates adjunctus*, Walk. Cat. Het. vii. p. 114. n. 67 (1873).*Ectomocoris biguttulus.**Ectomocoris biguttulus*, Stål, (Efv. Vet.-Ak. Förh. 1870, p. 692.*Pirates caliginosus*, Walk. Cat. Het. vii. p. 123. n. 92 (1873).*Ectomocoris decoratus.**Pirates decoratus*, Stål, Ann. Soc. Ent. Fr. 1863, p. 57.*Pirates decorellus*, Walk. Cat. Het. vii. p. 129. n. 110 (1873).*Sirthena decorella*, Leth. & Sev. Cat. Gén. Hém. t. iii. p. 129 (1896).*Ectomocoris truculentus.**Pirates truculentus*, Stål, Ann. Soc. Ent. Fr. 1863, p. 56. (Immature form, type in Brit. Mus.)*Eumerus fasciola*, Reut. Act. Soc. Sc. Fennic. xii. p. 315 (1881).*Ectomocoris pictus*, sp. n.

Head, pronotum, and scutellum black, shining, posterior lobe of pronotum more or less piceous brown; corium and membrane piceous, opaque; apex of clavus connected with a lunate spot on corium, a spot near base of membrane, and basal margin of membrane at apex of corium, stramineous; connexivum, coxæ, legs, and rostrum ochraceous; sternum piceous, abdomen castaneous; lateral margins of meso- and metasterna and lateral margins of abdomen stramineous; connexivum above and beneath spotted with castaneous; basal joint of antennæ castaneous, remaining joints fuscous; antennæ thickly and finely pilose; legs longly pilose; anterior lobe of pronotum distinctly finely centrally sulcate, obscurely longitudinally sulcate on lateral areas; body beneath finely but sparingly tomentose.

Long. 14-15 millim.

Hab. Brit. East Africa: Athi River (*C. S. Betton*, Brit. Mus.).

Genus PIRATES.

*Pirates atromaculatus.**Cleptocoris atromaculatus*, Stål, (Efv. Vet.-Ak. Förh. 1870, p. 692.*Pirates sinensis*, Walk. Cat. Het. vii. p. 114. n. 66 (1873).*Pirates sanctus.**Reduvius sanctus*, Fabr. Mant. ii. p. 310 (1787).*Lestomerus sanctus*, Walk. Cat. Het. vii. p. 94 (1873).*Pirates latifer*, Walk. loc. cit. p. 119. n. 75.

Pirates affinis.

Peirates affinis, Serv. Ann. Sci. Nat. xxiii. p. 216 (1831).

Lestomerus affinis, Walk., var. ♀, Cat. Het. vii. p. 91 (1873).

Lestomerus piceipennis, Walk. loc. cit. p. 92. n. 5.

Var. *Lestomerus diffinis*, Walk. loc. cit. n. 7.

Pirates Walkeri, Leth. & Sev. Cat. Gén. Hém. t. iii. p. 127 (1896).

Pirates arcuatus.

Spilodermus arcuatus, Stål, Öfv. Vet.-Ak. Förh. 1870, p. 692.

Pirates mutilloides, Walk. Cat. Het. vii. p. 120. n. 79 (1873).

Pirates femoralis.

Lestomerus femoralis, Walk. Cat. Het. vii. p. 92. n. 6 (1873).

Pirates (Lestomerus) cruciatus, Horv. Term. Füz. iii. p. 148 (1879).

Pirates bicoloripes, Bredd. Abh. Ges. Halle, xxiv. p. 101 (1901).

Although Walker only described the four anterior femora as being "towards the base" "tawny," the whole of the femora are reddish, varying in extent of that coloration from the base.

Pirates turpis.

Pirates turpis, Walk. Cat. Het. vii. p. 120. n. 78 (1873).

Pirates (Cleptocoris) brachypterus, Horv. Termesz. Füzetek, iii. p. 148 (1879).

Pirates concolor, Jakowleff, Bull. Mosc. lvi. p. 213 (1881).

Pirates (Cleptocoris) mæstus, Reut. Act. Soc. Sc. Fennic. xii. p. 311 (1881).

Pirates glaber.

Pirates glaber, Walk. Cat. Het. vii. p. 129. n. 111 (1873).

Sirthenea glabra, Leth. & Sev. Cat. Gén. Hém. t. iii. p. 129 (1896).

Allied to *P. ephippiger*, White.

Pirates sobrius.

Pirates sobrius, Walk. Cat. Het. vii. p. 128. n. 107 (1873). (Immature form.)

Sirthenea sobria, Leth. & Sev. Cat. Gén. Hém. t. iii. p. 129 (1896).

Pirates noctis, sp. n.

Piceous black, opaque, membrane shining; first and second joints of the antennæ (remainder mutilated), apices of anterior femora, outer surfaces of intermediate and posterior femora, the tibiæ and tarsi testaceous; disk of abdomen beneath more or less obscure testaceous. Anterior lobe of pronotum centrally sulcate and obscurely furrowed on each lateral area;

legs and antennæ longly pilose; eyes and ocelli obscure stramineous.

Long. 25 millim.

Hab. Madagascar: Antananarivo (*Rev. R. Toy*, Brit. Mus.).

Pirates aurigans, sp. n.

Head, pronotum, scutellum, sternum, rostrum, antennæ, and legs black; corium, membrane, and abdomen beneath dark piceous brown; connexivum above and beneath and a discal longitudinal fascia to corium (commencing on claval margin at about one third from base, terminating on basal margin of membrane, a little widened interiorly near centre, where it emits a short transverse spur) golden yellow; a discal spot to corium and a larger discal spot to membrane black. Anterior lobe of pronotum with a distinct central basal fovea, the lateral areas obscurely sulcate; scutellum with the lateral margins and apex strongly carinate; antennæ thickly and finely pilose, second and third joints subequal in length.

Long. 12-13 millim.

Hab. Brit. East Africa: El donyo eb Viru (*C. S. Betton*, Brit. Mus.).

Pirates marginiventris, sp. n.

Dull dark castaneous; head, corium, and membrane piceous; connexivum above and beneath, antennæ, rostrum, legs, and basal lateral angles of corium ochraceous; antennæ with the second and third joints infuscated. Anterior lobe of pronotum finely centrally sulcate, lateral areas obscurely sulcate; membrane distinctly passing the apex of abdomen, its apical margin pale fuliginous.

Long. 10-11 millim.

Hab. Brit. East Africa: Athi River, Athi-ya-Mawe (*C. S. Betton*, Brit. Mus.).

Pirates sepulchralis, sp. n.

Black, shining, corium and membrane opaque; apical half of clavus connected with a somewhat similar spot on corium at claval margin, the apical fringe to tibiæ, and apex of second joint to rostrum ochraceous; tarsi brownish ochraceous.

Head between the eyes centrally sulcate; anterior lobe of pronotum narrowly centrally sulcate on posterior half; apex of scutellum upwardly tuberculate; anterior femora strongly incassated and spined beneath, four spines on apical half.

Long. 23 millim.

Hab. West Australia (*E. H. Saunders*, Brit. Mus.).

Genus RASAHUS.

Rasahus maculipennis.

Reduvius maculipennis, Lepell. & Serv. Encyl. Méth. x. p. 276 (1825).
Pirates biplagiatus, Walk. Cat. Het. vii. p. 105. n. 34 (1873).

Rasahus flavovittatus.

Sphodrocoris flavovittatus, Stål, En. Hem. ii. p. 107 (1872).
Pirates vittifer, Walk. Cat. Het. vii. p. 106. n. 35 (1873).

Mr. Champion has compared the types of Stål and Walker.

Rasahus rufiventris.

Pirates rufiventris, Walk. Cat. Het. vii. p. 107. n. 38 (1873).

Rasahus æneus.

Pirates æneus, Walk. Cat. Het. vii. p. 108. n. 40 (1873).

Genus SIRTHENEA.

Sirthenea flavipes.

Rasahus flavipes, Stål, Öfv. Vet.-Ak. Förh. 1855, p. 187.
Rasahus Cumingi, Dohrn, Stett. ent. Zeit. xxi. p. 407 (1860).
Pirates strigifer, Walk. Cat. Het. vii. p. 116. n. 71 (1873).
Pirates basiger, Walk. loc. cit. p. 117. n. 72.

Sirthenea horrida.

Lestomerus horridus, Kirby, Journ. Linn. Soc., Zool. xxiv. p. 111, pl. iv. fig. 16 (1891).

Kirby's type is an immature specimen. I have since received perfect examples from Ceylon and Burma, and the British Museum also contains another Burmese immature but more fully developed specimen than the Ceylonese type.

♂. Hemelytra reaching apex of abdomen, piceous, opaque; apical area of clavus and a fused spot on claval margin of corium and a spot on basal area of membrane pale ochraceous.

Sirthenea vittata, sp. n.

Head, pronotum, and scutellum shining black; corium, membrane, body beneath, rostrum, and legs piceous brown; an elongate longitudinal discal vitta to corium, antennæ, apices of intermediate and posterior coxæ, upper surface and a vitta on each side of anterior femora, bases of intermediate and posterior femora, bases of tibiæ, and a central and marginal series of spots to abdomen pale ochraceous. Elongate; finely pilose; anterior lobe of pronotum longitudinally

sculptured and centrally sulcate; scutellum centrally foveate, its margins and apex strongly carinate.

Long. 15 millim.

Hab. Colombia: Cali (*Rosenberg*, Brit. Mus.). Trinidad (Coll. Dist.).

Summarized Disposition of Walker's Genera and Species belonging to the Subfam. Piratinæ.

Species considered valid and described under correct Genera.

- Pirates planus*, Walk. Cat. Het. vii. p. 111. n. 52 (1873).
 — *dimidiatus*, Walk. loc. cit. n. 54 (nec *dimidiatus*, p. 102. n. 23).
 — *instabilis*, Walk. loc. cit. p. 118. n. 74.
 — *turpis*, Walk. loc. cit. p. 120. n. 78.
 — *concinus*, Walk. loc. cit. p. 124. n. 93.
 — *sobrius*, Walk. loc. cit. p. 128. n. 107. An immature form, sp. ?
 — *fulvipennis*, Walk. loc. cit. n. 108.
 — *erythromelas*, Walk. loc. cit. n. 109.
 — *glaber*, Walk. loc. cit. p. 129. n. 111.

Species considered valid, but requiring generic revision.

- Lestomerus femoralis*, Walk. Cat. Het. vii. p. 92. n. 6 (1873), belongs to gen. *Pirates*.
 — *flavipes*, Walk. loc. cit. p. 93. n. 8, belongs to gen. *Pirates*.
Pirates degener, Walk. loc. cit. p. 100. n. 20, belongs to gen. *Melanolestes*.
 — *rufiventris*, Walk. loc. cit. p. 107. n. 38, " " *Rasahus*.
 — *aneus*, Walk. loc. cit. p. 108. n. 39, " " "
 — *minusculus*, Walk. loc. cit. n. 40, " " *Leogorrus*.
 — *posticus*, Walk. loc. cit. p. 115. n. 69, " " *Ectomocoris*.
 — *rufifemur*, Walk. loc. cit. p. 119. n. 76, " " "
 — *interruptus*, Walk. loc. cit. p. 124. n. 94, " " *Velitra*.

Species treated as synonymic.

- Lestomerus piceipennis*, Walk. Cat. Het. vii. p. 92. n. 5 (1873), = *Pirates affinis*, Serv.
 — *diffinis*, Walk. loc. cit. n. 7, = *Pirates affinis*, var.
Pirates semirufus, Walk. loc. cit. p. 99. n. 17, = *Thymbreus crocinopterus*, Stål.
 — *me.icanus*, Walk. loc. cit. n. 18, = *Rasahus guttatipennis*, Stål.
 — *concisus*, Walk. loc. cit. p. 101. n. 22, = *Rasahus hamatus*, Fabr.
 — *morio*, var., Walk. loc. cit. p. 104. n. 30, = *Rasahus arciger*, Stål.
 — *indecisus*, Walk. loc. cit. n. 32, = *Rasahus hamatus*, Fabr.
 — *lepidus*, Walk. loc. cit. p. 105. n. 33, = *Phorastes femoratus*, De Geer.
 — *biplagiatus*, Walk. loc. cit. p. 34, = *Rasahus maculipennis*, Lep. & Serv.
 — *vittifer*, Walk. loc. cit. p. 106. n. 35, = *Rasahus flavovittatus*, Stål.
 — *megaspilus*, Walk. loc. cit. n. 36, = *Leogorrus picturatus*, Stål.
 — *hamifer*, Walk. loc. cit. p. 107. n. 37, = *Rasahus albomaculatus*, Mayr.
 — *sinensis*, Walk. loc. cit. p. 114. n. 66, = *Pirates atromaculatus*, Stål.
 — *adjunctus*, Walk. loc. cit. n. 67, = *Ectomocoris cordiger*, Stål.
 — *inscriptus*, Walk. loc. cit. p. 115. n. 68, = *Ectomocoris elegans*, Fabr.

- Pirates sermaculatus*, Walk. loc. cit. p. 116. n. 70, = *Ectomocoris quadriguttatus*, Fabr.
 — *strigifer*, Walk. loc. cit. n. 71, = *Sirthenea flavipes*, Stål.
 — *basiger*, Walk. loc. cit. p. 117. n. 72, = *Sirthenea flavipes*, Stål.
 — *decimus*, Walk. loc. cit. p. 118. n. 73, = *Ectomocoris quadriguttatus*, Fabr.
 — *latifer*, Walk. loc. cit. p. 119. n. 75, = *Pirates sanctus*, Fabr.
 — *diffinis*, Walk. loc. cit. p. 120. n. 77, = *Ectomocoris atrox*, Stål.
 — *mutilloides*, Walk. loc. cit. n. 79, = *Pirates arcuatus*, Stål.
 — *caliginosus*, Walk. loc. cit. p. 123. n. 92, = *Ectomocoris biguttulus*, Stål.
 — *sculpturatus*, Walk. loc. cit. p. 125. n. 95, = *Acanthaspis flavovaria*, Hahn.
 — *decorellus*, Walk. loc. cit. p. 129. n. 110, = *Ectomocoris decoratus*, Stål.
 — *contiguus*, Walk. loc. cit. p. 130. n. 112, = *Rasahus hamatus*, Fabr.

To be treated as non-existent.

Species the types of which are not now to be found in the British Museum.

- Lestomerus diversus*, Walk. Cat. Het. vii. p. 93. n. 9 (1873).
 — *formicarius*, Walk. loc. cit. p. 94. n. 10.
Pirates dimidiatus, Walk. loc. cit. p. 102. n. 23 (nec *dimidiatus*, p. 111, n. 54).
 — *sinicus*, Walk. loc. cit. p. 121. n. 83.
 — *trinotatus*, Walk. loc. cit. p. 130. n. 113.

ECTRICHODINÆ.

Genus SANTOSIA.

Santosia erythrocephala.

Reduvius erythrocephalus, Wolff, Icon. iii. p. 126, fig. 120 (1802).

Var. *Ectrichodia diminuens*, Walk. Cat. Het. viii. p. 45. n. 28 (1873).

Santosia lugubris, sp. n.

Black, opaque; head, antennæ, rostrum, pronotum, scutellum, and legs brownish ochraceous; basal half of posterior femora, sometimes basal halves of all the femora, black; antennæ very longly pilose, first joint a little longer than pronotum, second joint a little longer than first; anterior lobe of pronotum a little shorter than posterior lobe, centrally finely but deeply sulcate, sulcation not reaching base of posterior lobe; femora obscurely subnodulose at apices.

Long. 13–15 millim.

Hab. Borneo: Sarawak (*Shelford*, Brit. Mus.).

The type in the British Museum has only the basal half of the posterior femora black; another specimen in my own collection, also received from Mr. Shelford, has the halves of all the femora black.

Genus HÆMATOLÆCHA.

Hæmatolæcha nigrorufa.

Scadra nigrorufa, Stål, Öfv. Vet.-Ak. Förh. 1866, p. 301.

Ectrichodia includens, Walk. Cat. Het. viii. p. 51. n. 50 (1873).

Hæmatolæcha Ridleyana, sp. n.

Head and pronotum reddish ochraceous; fascia between eyes and base of head, fascia at transverse constriction, central sulcation and basal margin of pronotum, black; scutellum and hemelytra black, basal angle of hemelytra reddish ochraceous; connexivum reddish ochraceous, with large subquadrate black spots; central area to head beneath and sternum black; abdomen piceous, its lateral margins spotted with reddish ochraceous and somewhat luteous on disks of fifth and sixth segments; legs stramineous, apices of femora, bases and apices of tibiæ, and apices of tarsi piceous; antennæ with the first and second joints fuscous, third and fourth joints stramineous, base of third and apex of fourth fuscous, remaining joints mutilated.

♀. Anterior femora only moderately incrassated; central impression somewhat obsolete to anterior lobe of pronotum, profound to posterior lobe, sublateral impressions profound, subcrenulate.

Long., ♀, 20 millim.

Hab. Singapore (*H. N. Ridley*, Brit. Mus.).

Genus MINDARUS.

Mindarus discus.

Ectrychotes discus, Börn. Handb. ii. p. 238 (1835).

Ectrichodia venusta, Walk. Cat. Het. viii. p. 58. n. 72 (1873).

Mindarus nitidissimus.

Ectrichodia nitidissima, Walk. Cat. Het. viii. p. 57. n. 71 (1873).

Mindarus decolor.

Reduvius decolor, Walk. Cat. Het. vii. p. 185. n. 14 (1873).

Ectrichodia nigroscutata, Walk. *loc. cit.* viii. p. 60. n. 80.

Mindarus pallitarsis.

Ectrichodia pallitarsis, Walk. Cat. Het. viii. p. 59. n. 79 (1873).

Mindarus colossus, sp. n.

Black; central fascia to head broadened between the eyes,

a somewhat large spot on each lateral area of the anterior pronotal lobe, two small discal spots near transverse constriction and basal margin of posterior pronotal lobe, a spot near base, two discal lines (the innermost smallest) to corium, spots to connexivum, three discal series of spots, a lateral marginal series of spots, and apical segmental margin to abdomen beneath, apices of all the femora above, base of posterior femora above, and tibiæ (excluding bases and apices) sanguineous; antennæ with the first four joints black, pilose, remainder mutilated; lateral areas of the head striate; body somewhat broad and robust.

Long. 29 millim.; exp. pronot. angl. $8\frac{1}{2}$ millim.

Hab. Paraguay (Brit. Mus.).

Genus ZIRTA.

Zirta hirticornis.

Reduvius hirticornis, Fabr. Ent. Syst., Suppl. p. 544 (1798).

Ectrichodia atripennis, Walk. Cat. Het. viii. p. 56. n. 69 (1873).

Zirta simillima, sp. n.

Closely allied to *Z. hirticornis*, but differing by having the posterior lobe of the pronotum smooth, not rugulose, and the scutellum and connexivum totally black.

Black; head and anterior lobe of pronotum dull ochraceous, posterior pronotal lobe reddish ochraceous.

Long. 18 millim.

Hab. Brazil (Brit. Mus.). Amazons: St. Paulo (Coll. Dist.).

Zirta granulata.

Ectrichodia granulata, Walk. Cat. Het. viii. p. 58. n. 73 (1873).

Genus CLEPTRIA.

Cleptria mombasæ, sp. n.

♂. Head, pronotum, scutellum, and legs brownish ochraceous; mucronate apices of the scutellum sanguineous; hemelytra black, opaque; base of corium and clavus and lateral margin of corium continued inwardly near apex brownish ochraceous; coxæ, bases of femora, anterior and intermediate tibiæ and tarsi, rostrum, and body beneath ochraceous; lateral areas of meso- and metasterna, abdominal incisures, and anal segment piceous; antennæ brownish piceous, strongly pilose; eyes and area of ocelli black. Second joint of antennæ slightly longer than the first; vertex

of head distinctly sulcate between eyes; pronotum finely centrally sulcate, the sulcation neither reaching the anterior nor posterior margin, posterior lobe profoundly sulcate near lateral angles.

Long., ♂, 17 millim.

Hab. East Africa : Mombasa (Brit. Mus.).

Genus MENDIS.

Mendis pectoralis.

Mendis pectoralis, Stål, Ann. Soc. Ent. Fr. 1863, p. 46.

Mendis japonensis, Scott, Ann. & Mag. Nat. Hist. (4) xiv. p. 445 (1874),

Mendis semirufa.

Ectrichodia semirufa, Stål, Öfv. Vet.-Ak. Förh. 1854, p. 237.

Ectrichodia luteoatra, Walk. Cat. Het. viii. p. 53. n. 57 (1873).

Adrania luteoatra, Leth. & Sev. Cat. Gén. Hém. t. iii. p. 135 (1896),

Mendis chinensis, sp. n.

Sanguineous, shining; antennæ (excluding basal joint), eyes, hemelytra, spots to connexivum on fourth and fifth segments, four spots to metasternum (two central and one on each side), a small lateral spot to second abdominal segment, and large transverse lateral spots to third, fourth, and fifth segments black; tarsi brownish ochraceous; basal joint of antennæ dull testaceous; antennæ very longly pilose, second joint slightly longer than the first; anterior pronotal lobe foveately sulcate throughout its entire length, posterior lobe much more finely sulcate for about half its length.

Long. 11 millim.

Hab. China : Amoy (Brit. Mus.).

Genus ECTRYCHOTES.

Ectrychotes porrigens.

Ectrichodia porrigens, Walk. Cat. Het. viii. p. 47. n. 34 (1873).

Physorhynchus porrigens, Leth. & Sev. Cat. Gén. Hém. t. iii. p. 140 (1896).

Ectrychotes atripennis.

Larymma atripennis, Stål, Öfv. Vet.-Ak. Förh. 1866, p. 302.

Ectrichodia ophirica, Walk. Cat. Het. viii. p. 51. n. 49 (1873).

Scadra ophirica, Leth. & Sev. Cat. Gén. Hém. t. iii. p. 133 (1896).

Genus PHYSORHYNCHUS.

*Physorhynchus Linnæi.**Ectrichodia Linnæi*, Stål, Öfv. Vet.-Ak. Förh. 1859, p. 178.*Ectrichodia discrepans*, Walk. (part.), Cat. Het. viii. p. 46. n. 33 (1873).*Physorhynchus marginatus.**Physorhynchus (Hæmatorrhopus) marginatus*, Reut. Act. Soc. Sc. Fennic. xii. p. 301 (1881).*Ectrichodia discrepans*, Walk. (part.), Cat. Het. viii. p. 46. n. 33 (1873).

Genus CENTRASPIS.

Centraspis ducalis, sp. n.

Head, hemelytra, rostrum, body beneath, and legs shining black; pronotum, scutellum, connexivum, lateral margins of sternum and abdomen (widest on sternum and at apex of abdomen), anal abdominal segment, and the coxæ ochraceous; two discal spots to posterior lobe of pronotum, three elongate basal spots to scutellum, and suffusions to coxæ black; antennæ with the first joint black, second brownish piceous, remaining joints mutilated. Pronotum profoundly transversely and longitudinally sulcate, the sulcations fine and impunctate.

Long. 27 millim.; exp. pronot. angl. $7\frac{1}{2}$ millim.*Hab.* Ashantee (*W. H. Adams*, Brit. Mus.).

Genus VILIUS.

*Vilius melanopterus.**Vilius melanopterus*, Stål, Ann. Soc. Ent. Fr. 1863, p. 45.*Ectrichodia insignis*, Walk. Cat. Het. viii. p. 48. n. 39 (1873).*Ectrichodia limbifera*, Walk. loc. cit. p. 49. n. 43.*Mendis insignis*, Leth. & Sev. Cat. Gén. Hém. t. iii. p. 137 (1896).*Vilius macrops.**Ectrichodia macrops*, Walk. Cat. Het. viii. p. 48. n. 42 (1873).

Doubtfully distinct from the preceding species.

*Vilius intermedius.**Ectrichodia intermedia*, Walk. Cat. Het. viii. p. 50. n. 48 (1873).*Scadra intermedia*, Leth. & Sev. Cat. Gén. Hém. t. iii. p. 132 (1896).*Vilius albomaculatus*, sp. n.

Black, shining, hemelytra opaque; head, rostrum, lateral and anterior margins of anterior lobe of pronotum, spots to

second, third, and fourth segments of connexivum, body beneath, and legs ochraceous; eyes, a broad central annulation to femora, tibiae (excluding base), tarsi, lateral spots to fourth, fifth, and sixth abdominal segments, two small central spots to sixth segment, anal segment and abdominal apex, and a lateral spot to the pro- and mesosterna black; antennæ with the first and second joints piceous, remaining joints mutilated, base of first joint ochraceous; hemelytra with a discal greyish-white spot; basal joint of antennæ distinctly longer than head; central sulcation to pronotum broad and foveate.

Long. 18 millim.

Hab. Malay Peninsula: Selangore (*H. N. Ridley*, Brit. Mus.).

SCHOTTUS, gen. nov.

Antennæ four-jointed, moderately pilose, joints moderately robust, first and second stoutest, first joint about as long or almost as long as head, second almost half as long again as first, third and fourth more slender and subequal; rostrum with the first joint longer than the second, very little shorter in length than second and third joints together; head broad, gibbous behind the eyes, constricted at base; pronotum centrally foveately sulcate, from base of anterior to near base of posterior lobe, longitudinally sulcate near posterior angles, transverse constriction interrupted at central sulcation; scutellum biangulate posteriorly, the mucronate angles somewhat widely separated; connexivum exposed, upwardly directed; hemelytra almost reaching apex of abdomen; anterior femora not prominently incrassated, unarmed; abdomen centrally ridged beneath; sternum broadly channelled between the intermediate coxæ.

A genus allied to *Vilius*, but at once separated by the structure of the rostrum, robust second joint of antennæ, &c.

Schottus sulicus.

Ectrichodia sulica, Walk. Cat. Het. viii. p. 50. n. 47 (1873).

Scadra sulica, Leth. & Sev. Cat. Gén. Hém. t. iii. p. 133 (1896).

Hab. Sula (Brit. Mus.).

Schottus luteicollis.

Ectrichodia luteicollis, Walk. Cat. Het. viii. p. 52. n. 51 (1873).

Scadra luteicollis, Leth. & Sev. Cat. Gén. Hém. t. iii. p. 132 (1896).

Hab. Borneo; Malay Peninsula (Brit. Mus.).

*Summarized Disposition of Walker's Genera and Species
belonging to the Subfam. Ectrichodinæ.*

Species considered valid and described under correct Genera.

Ectrichodia tibialis, Walk. Cat. Het. viii. p. 62. n. 95 (1873).

Species considered valid, but requiring generic revision.

Ectrichodia diversipes, Walk. Cat. Het. viii. p. 41. n. 11 (1873), belongs to gen. *Physorhynchus*.

— *marginicollis*, Walk. loc. cit. p. 42. n. 12, belongs to gen. *Physorhynchus*.

— *porrigens*, Walk. loc. cit. p. 47. n. 34, " " *Ectrychotes*.

— *macrops*, Walk. loc. cit. p. 48. n. 42, " " *Vilius*.

— *aliena*, Walk. loc. cit. p. 49. n. 46, " " *Scadra*.

— *sulica*, Walk. loc. cit. p. 50. n. 47, " " *Schottus*, g. n.

— *intermedia*, Walk. loc. cit. n. 48, " " *Vilius*.

— *luteicollis*, Walk. loc. cit. p. 52. n. 51, " " *Schottus*, g. n.

— *cylindrica*, Walk. loc. cit. p. 53. n. 56, " " *Adrania*.

— *nitidissima*, Walk. loc. cit. p. 57. n. 71, " " *Mindarus*.

— *granulata*, Walk. loc. cit. p. 58. n. 73, " " *Zirta*.

— *pallitarsis*, Walk. loc. cit. p. 59. n. 79, " " *Mindarus*.

Reduvius decolor, Walk. loc. cit. vii. p. 185. n. 14, belongs to gen. *Mindarus*.

Species treated as synonymic.

Ectrichodia diminuens, Walk. Cat. Het. viii. p. 45. n. 28 (1873), = *Santosia erythrocephala*, Wolff, var.

— *discrepans*, Walk. (part.), loc. cit. p. 46. n. 33, = *Physorhynchus Linnei*, Stål.

— *discrepans*, Walk. (part.), loc. cit. p. 46. n. 33, = *Physorhynchus marginatus*, Reut.

— *insignis*, Walk. loc. cit. p. 48. n. 39, = *Vilius melanopterus*, Stål.

— *limbifera*, Walk. loc. cit. p. 49. n. 43, = *Vilius melanopterus*, Stål.

— *ophirica*, Walk. loc. cit. p. 51. n. 49, = *Ectrychotes atripennis*, Stål.

— *includens*, Walk. loc. cit. n. 50, = *Hæmatolæcha nigrorufa*, Stål.

— *luteoatra*, Walk. loc. cit. p. 53. n. 57, = *Mendis semirufa*, Stål.

— *atripennis*, Walk. loc. cit. p. 56. n. 69, = *Zirta hirticornis*, Fabr.

— *fervida*, Walk. loc. cit. p. 57. n. 70, = *Ectrichodia crudelis*, Stål.

— *venusta*, Walk. loc. cit. p. 58. n. 72, = *Mindarus discus*, Burm.

— *nigroscutata*, Walk. loc. cit. p. 60. n. 80, = *Mindarus decolor*, Walk.

— *media*, Walk. loc. cit. p. 62. n. 94, = *Ectrichodia cruciata*, Say.

Pothea centralis, Walk. loc. cit. p. 63. n. 8, = *Pothea lugens*, Fabr.

— *reciproca*, Walk. loc. cit. p. 64. n. 9, = *Pothea anescens*, Stål.

To be treated as non-existent.

Species the types of which are not now to be found in the British Museum.

Ectrichodia pictipes, Walk. Cat. Het. viii. p. 45. n. 29 (1873).

— *pyrophila*, Walk. loc. cit. p. 55. n. 66.

— *geniculosa*, Walk. loc. cit. p. 59. n. 74.

SUPPLEMENTARY NOTES.

*SALYAVATINÆ.**Lisarda inornata.*

Acanthaspis inornata, Walk. Cat. Het. vii. p. 175. n. 51 (1873).

Lisarda pallidispina, Stål, En. Hem. iv. p. 83 (1874).

ACANTHASPINÆ.

Genus PASIRA.

Pasira perpusilla.

Reduvius perpusillus, Walk. Cat. Het. vii. p. 196. n. 50 (1873).

Pasira pusilla.

Reduvius pusillus, Walk. Cat. Het. vii. p. 193. n. 43 (1873).

Clavus, base of corium, a linear spot near centre of apical margin of corium, spots to connexivum, and extreme apices of anterior femora obscure brownish ochraceous.

XLII.—Notes on the Classification of Teleostean Fishes.—

IV. On the Systematic Position of the Pleuronectidæ. By G. A. BOULENGER, F.R.S.

IN the classification of Cuvier, at the beginning of the last century, the presence or absence of spines in the dorsal fin was regarded as of so great importance in the Teleostean fishes that they were primarily divided into Acanthopterygians and Malacopterygians. According to the presence or absence and the position of the ventral or pelvic fins, the latter division was again split up into three groups—Abdominals, Subbrachials, and Apodes. The Gadoids and Pleuronectids were thus brought together as Subbrachial Malacopterygians. When Johannes Müller took up the condition of the air-bladder as a basis for the establishment of higher groups, these Subbrachial Malacopterygians were removed from the Abdominals or Physostomes and placed nearer the Acanthopterygians, but remained associated under the name Anacanthini. And so they have been in most classifications, even modern text-books teaching us that flat-fishes are only modified asymmetrical Gadoids. But any one who will carefully compare the anatomical structure of the principal members of these two families cannot fail to recognize the absurdity of